

Courses Description - 1st Year

(Property Year)

(New Study Plan)



**Dean Of
Faculty Of Medicine**

**Deputy Dean For
Scientific Affairs**

Syrian Arab Republic

Ministry Of Higher Education And Scientific Research

Al-Baath University

Faculty Of Medicine



1st Course: Physics

Course Title And Code:

Physics.

Credit Hours:

3 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 1st semester.

Course Description:

- **Principles Of Modern Physics.**
- **Atomic Structure - Atomic Characteristics.**
- **Light Science.**
- **UV.**
- **X-Ray And Its Applications.**
- **Thermal Radiation (Infrared).**
- **Terahertz Waves Or Terahertz Rays.**
- **Microwave Waves.**
- **Types And Characteristics Of Lasers.**
- **Laser Imaging.**
- **Laser Applications.**
- **Nucleic Structure And Nuclear Properties.**
- **Radionuclides And Nuclear Medicine.**
- **Material And Hydrodynamics.**
- **Vibration And Wavelet Movements.**
- **Sound: Emission, Hearing And The Sub-Audible Sounds.**
- **Echo Imaging.**
- **Doppler Effect And Blood Velocity Measurement.**
- **Gravel Cutter And Acoustic Power.**
- **Photographic Flexibility In Ultrasound.**
- **Generation Of Magnetic Fields And Properties Of Magnetic Material.**
- **Nuclear Magnetic Response And Magnetic Response Imaging.**
- **Superconductivity: Origin And Applications.**

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Practical applications.**
- 3- Developing logical judgment - communication skills.**

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Al-Baath University

Faculty Of Medicine



4- Ability to analyze and managing data.

Teaching & Training Methods:

1- Theoretical course.

2- Practical training.

3- Educational multi-media tools.

Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.





2nd Course: Chemistry

Course Title And Code:

Chemistry.

Credit Hours:

4 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 1st semester.

Course Description:

- | | |
|---|---|
| <ul style="list-style-type: none">• Mol And Equations.• Atomic Structure.• Electrons In Atoms.• Chemical Bonding.• States Of Matter.• Enthalpy Changes.• Oxidation, Reaction And Electrolysis Reactions.• Equilibrium.• Interaction Velocity.• Periodic.• Nitrogen And Sulfur.• Introduction To Organic Chemistry. | <ul style="list-style-type: none">• Hydrocarbons.• Halogenated Alkanes.• Alcohols And Esters.• Carbonyl Compounds.• Ion Balance.• Kinetics Of Interactions.• Transition Metals.• Benzene And Its Compounds.• Carboxylic Acids.• Organic Nitrogen Compounds.• Polymerization.• Biochemistry.• Design And Materials. |
|---|---|

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Practical applications.**
- 3- Developing logical judgment - communication skills.**
- 4- Ability to analyze and managing data.**

Syrian Arab Republic

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Al-Baath University

Faculty Of Medicine



Teaching & Training Methods:

1- Theoretical course.

2- Practical training.

3- Educational multi-media tools.

Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.





3rd Course: Cell Biology

Course Title And Code:

Cell Biology.

Credit Hours:

3 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 1st semester.

Course Description:

- **Introduction To Cell Biology.**
- **Biochemical Structure Of The Cell.**
- **Structure And Function Of Cell Organelles.**
- **Structure And Function Of The Nucleus.**
- **Cell Membrane.**
- **The Cytoskeleton: Structure, Function, And Cell Locomotion.**
- **Cell Adhesion.**
- **Cell Energetics.**
- **Mitosis And Cell Cycle.**
- **Miosis And Chromosomes**
- **Inheritance.**
- **Cell Signaling.**
- **Differentiation, Stem Cells And Apoptosis.**

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Practical applications.**
- 3- Developing logical judgment - communication skills.**
- 4- Ability to analyze and managing data.**

Teaching & Training Methods:

- 1- Theoretical course.**
- 2- Practical training.**
- 3- Educational multi-media tools.**

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Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.





4th Course: History Of Medical Sciences

Course Title And Code:

History Of Medical Sciences.

Credit Hours:

2 theoretical hours/week (18 weeks).

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 1st semester.

Course Description:

- **History of Medical Sciences in Ancient Civilizations.**
- **Medical Sciences in Arab and Islamic Civilization.**
- **Evolution of medical sciences in Europe and America.**
- **The evolution of science in the world (the stage of micro-medical specialties).**
- **History of medical sciences in modern and contemporary history (from the 16th century until today).**

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Ability to analyze and managing data.**

Teaching & Training Methods:

- 1- Theoretical course.**
- 2- Educational multi-media tools.**

Assessment Strategy And Credits:

100 credits:

Evaluation of theoretical Knowledge 100 credits:

Automated examination at the end of the semester.

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5th Course: English Language (1)

Course Title And Code:

English Language (1).

Credit Hours:

2 theoretical hours/week (18 weeks).

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 1st semester

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Ability to analyze and managing data.**

Teaching & Training Methods:

- 1- Theoretical course.**
- 2- Educational multi-media tools.**

Assessment Strategy And Credits:

100 credits:

Evaluation of theoretical Knowledge 100 credits:

Automated examination at the end of the semester.



6th Course: Anatomy

Course Title And Code:

Anatomy.

Credit Hours:

3 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 2nd semester.

Course Description:

- | | |
|--|---|
| <ul style="list-style-type: none">• Introduction In General Anatomy.• Skeleton Bones And Joints.• Muscular System.• Respiratory System.• Cardiovascular System. | <ul style="list-style-type: none">• Digestive System.• Urinary System.• Reproductive System.• Central Nervous System.• Peripheral Nervous System.• Sensory Organs. |
|--|---|

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Practical applications.**
- 3- Developing logical judgment - communication skills.**
- 4- Ability to analyze and managing data.**

Teaching & Training Methods:

- 1- Theoretical course.**
- 2- Practical training.**
- 3- Educational multi-media tools.**

Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.



7th Course: Medical Physiology

Course Title And Code:

Medical Physiology.

Credit Hours:

3 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 2nd semester.

Course Description:

- **Introduction To Physiology.**
- **Physiology Of Excitable Tissues.**
- **The Blood.**
- **Autonomic Nervous System.**
- **The Heart.**
- **Circulatory System.**
- **Respiratory System.**
- **Urinary System.**
- **Metabolism And Energy Balance.**
- **Digestive System.**
- **Endocrine System.**
- **Nervous System.**

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Practical applications.**
- 3- Developing logical judgment - communication skills.**
- 4- Ability to analyze and managing data.**

Teaching & Training Methods:

- 1- Theoretical course.**
- 2- Practical training.**
- 3- Educational multi-media tools.**

Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.



8th Course: Medical Statistics

Course Title And Code:

Medical Statistics.

Credit Hours:

2 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 2nd semester.

Course Description:

- **Introduction To Statistics And Biomedical Statistics.**
- **Types Of Variables And Measurement Scales.**
- **Methods Of Data Collection.**
- **Means Of Summarizing And Presenting Data.**
- **The Population And The Sample.**
- **Related Distributions.**
- **Statistical Inference And Hypothesis Testing.**
- **Comparison Of Averages And Ratios.**
- **Interdependence And Forecasting.**
- **Sources Of Data Collection.**
- **Population And Health Sciences.**
- **Medical Records.**

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Practical applications.**
- 3- Developing logical judgment - communication skills.**
- 4- Ability to analyze and managing data.**

Teaching & Training Methods:

- 1- Theoretical course.**
- 2- Practical training.**
- 3- Educational multi-media tools.**

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Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.





9th Course: Genetics

Course Title And Code:

Genetics.

Credit Hours:

2 theoretical hours/week (18 weeks).

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 2nd semester.

Course Description:

- **Introduction To Medical Genetics.**
- **Mendelian Inheritance.**
- **Non-Mendelian Inheritance.**
- **Genetic Material And Chromosomes.**
- **DNA Replication.**
- **Transcription.**
- **Translation And Protein Synthesis.**
- **Regulation Of Gene Expression.**
- **Genetic Engineering Technology.**
- **Human Genome.**
- **Chromosomes Abnormality (Aberrations).**
- **Genetic Counseling.**
- **Immunogenetics.**
- **Pharmacogenetics.**
- **Cancer Genetics.**
- **Human Population Genetics.**
- **Genetics Of Common Diseases.**

Educational Outputs The Student Should Acquire:

- 1- Knowledge and understanding of course topics.**
- 2- Ability to analyze and managing data.**

Teaching & Training Methods:

- 1- Theoretical course.**
- 2- Educational multi-media tools.**

Assessment Strategy And Credits:

100 credits:

Evaluation of theoretical Knowledge 100 credits:

Automated examination at the end of the semester.

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Faculty Of Medicine



10th Course: English Language (2)

Course Title And Code:

English Language (2).

Credit Hours:

2 theoretical hours/week (18 weeks).

Level/Year At Which This Course Is Offered:

1st year (Property Year) – 2nd semester

Educational Outputs The Student Should Acquire:

1- Knowledge and understanding of course topics.

2- Ability to analyze and managing data.

Teaching & Training Methods:

1- Theoretical course.

2- Educational multi-media tools.

Assessment Strategy And Credits:

100 credits:

Evaluation of theoretical Knowledge 100 credits:

Automated examination at the end of the semester.